

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/06/99

Date Received: 06/10/99

Project: Metro Self monitor, PO# M62088

Date Samples Extracted: 07/01/99

Date Extracts Analyzed: 07/02/99

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, ZINC
USING METHOD 6010**

Samples Processed Using Method 3005A
Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M62088	0.33	0.34	0.30	<0.05
Method Blank	<0.05	<0.05	<0.05	<0.05

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QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 906114-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.21	0.17	21a	0-20
Copper	mg/L (ppm)	0.20	0.16	22a	0-20
Nickel	mg/L (ppm)	0.15	0.13	14	0-20
Zinc	mg/L (ppm)	0.09	0.06	40a	0-20

Laboratory Code: 906114-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	0.21	97	86	80-120	12
Copper	mg/L (ppm)	5	0.20	96	82	80-120	16
Nickel	mg/L (ppm)	10	0.15	99	93	80-120	6
Zinc	mg/L (ppm)	5	0.09	99	99	80-120	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	100	100	80-120	0
Copper	mg/L (ppm)	5	102	103	80-120	1
Nickel	mg/L (ppm)	10	98	103	80-120	5
Zinc	mg/L (ppm)	5	98	103	80-120	5

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Jensen, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
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e-mail: fbi@isomedia.com

July 6, 1999

DUPLICATE COPY

INVOICE #99ACU0706-1

Accounts Payable
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

RE: Project Metro Self monitor, PO# M62088: Results of testing requested
by Gerry Thompson for material submitted on June 10, 1999.

1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$80 per sample

\$ 80.00


Amount Due

\$ 80.00



FEDERAL TAX ID (b) (6)

mm 6/10/99 AI,

SAMPLE CHAIN OF CUSTODY

SITE NO.		PROJECT NAME		PURCHASE ORDER #	
7238		metro self monitor		m 62088	
SAMPLERS (signature)		PROJECT LOCATION			
		8200 6th Ave S.			
REMARKS		SAMPLE DISPOSAL INFORMATION			
		<input type="checkbox"/> Dispose after 30 days <input checked="" type="checkbox"/> Return Samples <input type="checkbox"/> Call for Instructions			

[illegible]

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: 	Gerald A. Thompson	ACU	6/10/79	12:58pm
Received by: 	S. Osborn	F+B, Inc.	6/10/79	1:11pm
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

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July 6, 1999

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

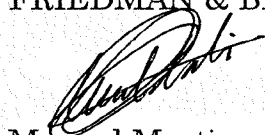
Dear Mr. Thompson:

Included are the results from the testing of material submitted on June 10, 1999 from your Metro Self monitor, PO# M62088 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Manuel Marti
Project Manager

Enclosures
ACU0706R.DOC